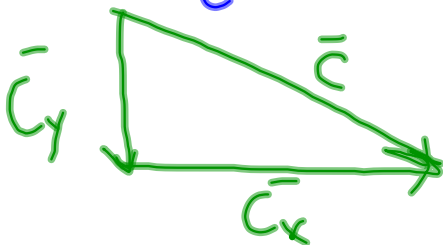
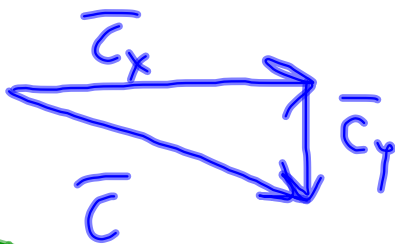


$$\begin{aligned} a_x &= 15.8\text{ m} \\ + b_x &= -3.10\text{ m} \\ \hline c_x &= 12.7\text{ m} \end{aligned}$$

$$\begin{aligned} a_y &= 13.8\text{ m} \\ + b_y &= -17.7\text{ m} \\ \hline c_y &= -3.90\text{ m} \end{aligned}$$



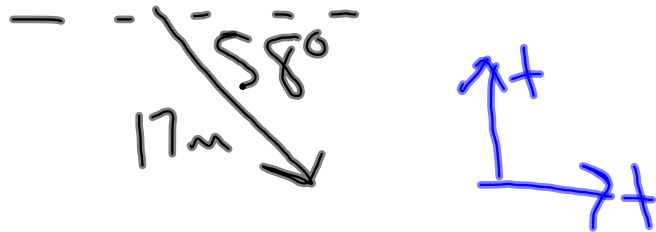
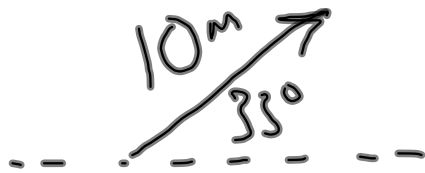
$$c^2 = c_x^2 + c_y^2$$

$$c = 13.3\text{ m}$$

$$\theta = \tan^{-1} \left(\frac{c_y}{c_x} \right) = 17.1^\circ$$

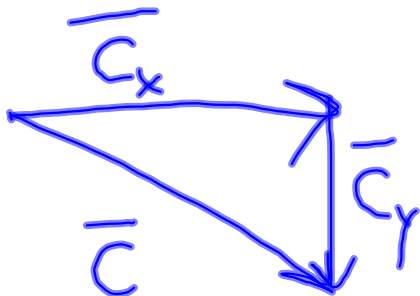
take abs. value

$$\vec{c} = 13.3\text{ m} @ 17.1^\circ \text{ South of East}$$



$$\begin{aligned} a_x &= 8.410\text{ m} \\ + b_x &= 9.00\text{ m} \\ \hline c_x &= 17.4\text{ m} \end{aligned}$$

$$\begin{aligned} a_y &= 5.410\text{ m} \\ + b_y &= -14.4\text{ m} \\ \hline c_y &= -9.00\text{ m} \end{aligned}$$



$$\begin{aligned} C &= 19.6\text{ m} \\ \theta &= 27.3^\circ \end{aligned}$$

$$\vec{C} = 19.6\text{ m @ } 27.3^\circ \text{ S of E}$$